

## SEQUENCE LISTING

<110> Kazemi-Esfarjani, Parsa
Benzer, Seymour

<120> AN ANIMAL MODEL OF POLYGLUTAMINE TOXICITY, METHODS OF USE, AND MODULATORS OF POLYGLUTAMINE TOXICITY

<130> 06618-686001

<140> US 09/639,207

<141> 2000-08-14

<150> US 60/148,934

<151> 1999-08-12

<150> US 60/148,933

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<150> US 60/177,047

<151> 2000-01-18

<150> US 60/205,720

<151> 2000-05-19

<160> 69

<170> FastSEQ for Windows Version 4.0

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Tyr Gln Asn Ala Leu Lys Leu Tyr Thr Asp Ala Ile Ser Leu Cys Pro 65 70 75 80

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gcagctaacg aagccctctt ggggcgtgga aaaacagcca aataatcgca aaacaaggtg
                                                                       7860
taaatcatta attggcccat aggcacacaa ttaggccaat taaacatatt tacgtgccca
                                                                       7920
aaaattagca ataaatagcg tgccaaaatt aacagtaacc atcggagtgt gcgtgtgtgt
                                                                       7980
gtgtgcgcag catgcgtgaa gtgaagacgt aataatcgat aatttgaatc gagcgaccgc
                                                                       8040
agggaaatgg aattggggaa aatgcactag caggcgttat ttcaaaggtt tcgcctgtc
                                                                       8100
actgggactt ttgataaggc ccaaccgcaa agtgacccat gtaaaggcag gctatcagac
                                                                       8160
cctattttat gtatatacgt aggctacgct gcctttatca ctatactgcg atatttggcc
                                                                       8220
acaagtcatt tagtttggct ttgtttaaaa cttaatttcg gctcagttta aaatgaaaca
                                                                       8280
aaaacgtaaa agcaaatcaa accgttcaca aatggagctc cagtaactcg cacatcagtc
                                                                       8340
aagtatcact aagttactca tctttcgttt gcag
                                                                       8374
<210> 12
<211> 165
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA
<400> 12
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ccccagcagc agcaacagca gcagcaacag caacagcagc agcaacaaca gcagcagcaa
                                                                       120
cagactagtc gtacgtatcc ctatgacgtg cccgactatg cgtag
                                                                       165
<210> 13
<211> 486
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA
<400> 13
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                                                                        60
ccccagcagc agcaacagca gcagcaacag caacagcagc agcaacaaca gcagcagcaa
                                                                       120
cagcaacagc agcagcaaca acagcagcag caacagcaac agcagcagca acagcagcag
                                                                       180
caacagcaac agcagcagca acaacagcag cagcaacagc aacagcagca gcaacaacag
                                                                       240
caacaacaac agcaacagca gcagcaacag cagcagcaac agcaacagca gcagcaacaa
                                                                       300
cagcagcagc aacagcaaca gcagcagcaa caacagcagc agcaacagca acagcagcag
                                                                       360
caacagcagc agcaacagca acagcagcag caacaacagc agctgcaaca gcaacagcag
                                                                       420
cagcaacaac agcagcagca acagactagt cgtacgtatc cctatgacgt gcccgactat
                                                                       480
gcgtag
                                                                       486
<210> 14
<211> 21
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Synthetic Polypeptide
<400> 14
Met Gly Gly Pro Pro Ser Thr Pro Thr Ser Arg Thr Tyr Pro Tyr Asp
Val Pro Asp Tyr Ala
         20
<210> 15
<211> 148
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Polypeptide
<400> 15
Met Gly Gly Pro Pro Ser Thr Pro Gln Gln Gln Gln Gln Gln Gln
25
40
55
70
                              75
90
100
                        105
                                       110
115
                     120
                                    125
Gln Gln Gln Gln Gln Gln Thr Ser Arg Thr Tyr Pro Tyr Asp Val
   130
                  135
Pro Asp Tyr Ala
145
<210> 16
<211> 582
<212> DNA
<213> Drosophila
<220>
<221> misc_feature
<222> (1)...(582)
<223> n = A, T, C or G
<400> 16
gcatggcacg cttttttccg tgtgctcggt tcgttcggcc atacaaaaca caaaattcaa
                                                     60
gtttaaaaac taaataggca actaaaaggg aagccgcagc gaataaagtg atttgctgaa
                                                    120
agagacgtaa gaaagttaat cgcatcgaag gcaccagaaa tcggggattt ctaacacggc
                                                    180
gegegtgega egtacataca taegeaageg cacacacaca egaacaatta ettgecattq
                                                    240
acgcaaaagc gaaaaagcag tggaataaaa gggggaattg acaaataaca acgttttgca
                                                    300
agcactggac tctggtcgct ggtgttcttt cattttgtaa ttgccacgca tggacgacga
                                                    360
agtaattgaa attagcgaca cgnnacgcga agaaacctca tcgaactccg aaatggatgt
                                                    420
ggaaataacg acagaacagc caaccatcga tgtcaaagca gagcaaattg tgcccaagga
                                                    480
cgcggcaacc attgccgagg agaagaagaa actgggcaac gaccaataca aggcgcagaa
                                                    540
ctatcagaat gcactcaagc tctacacgga tgccatatcg ct
                                                    582
```

```
<210> 17
<211> 274
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(274)
<223> n = A, T, C or G
<400> 17
cttcgcatgg cacgcttttt tccgtgtgct cggttcgttc ggccatacaa aacacaaaat
                                                                         60
tcaagtttaa aaactaaata ggcaactaaa agggaagccg cagcgaataa agtgatttqc
                                                                        120
tgaaagagac gtaagaaagt taatcgcatc gaaggcacca gaaatcgggg atttctaaca
                                                                        180
cggcgcgcgt gcgacgtaca tacatacgca agcgcacaca cacacgaaca attacttgcc
                                                                        240
attgacgcan aagcgaaaag cagtgaaata aagg
                                                                        274
<210> 18
<211> 565
<212> DNA
<213> Drosophila
<400> 18
cttcgcatgg cacgcttttt tccgtgtgct cggttcgttc ggccatacaa aacacaaaat
                                                                         60
tcaagtttaa aaactaaata ggcaactaaa agggaagccg cagcgaataa agtgatttqc
                                                                        120
tgaaagagac gtaagaaagt taatcgcatc gaaggcacca gaaatcgggg atttctaaca
                                                                        180
cggcgcgcgt gcgacgtaca tacatacgca agcgcacaca cacacgaaca attacttqcc
                                                                        240
attgacgcaa aagcgaaaaa gcagtggaat aaaggggaat tgacaaataa caacgttttg
                                                                        300
caagcactgg actotggtcg ctggtgttct ttcattttgt aattgccacg catggacgac
                                                                        360
gaagtaattg aaattagega cagegaaege gaagaaaeet categaaete egaaatggat
                                                                        420
gtggaaataa cgacagaaca gccaaccatc gatgtcaaag cagagcaaat tgtgcccaag
                                                                        480
gacgeggeaa ecattgeega ggagaagaag aaactgggea aegaceaata caaggegeag
                                                                        540
aactatcaga atgcactcaa gctct
                                                                        565
<210> 19
<211> 679
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(679)
<223> n = A, T, C \text{ or } G
<400> 19
ctacttcgca tggcacgctt ttttccgtgt gctcggttcg ttcggccata caaaacacaa
                                                                         60
aattcaagtt taaaaactaa ataggcaact aaaagggaag ccgcagcgaa taaagtgatt
                                                                        120
tgctgaaaga gacgtaagaa agttaatcgc atcgaaggca ccagaaatcg gggatttcta
                                                                        180
acacggegeg egtgegaegt acatacatae geaagegeae acacacaega acaattaett
                                                                        240
gccattgacg caaaagcgaa aaagcagtgg aataaagggg aattgacaaa taacaacgtt
                                                                        300
ttgcaagcac tggactctgg tcgctggtgt tctttcattt tgtaattgcc acgcatggac
                                                                        360
gacgaagtaa ttgaaattag cgacagcgaa cgcgaagaaa cctcatcgaa ctccgaaatg
                                                                        420
                                                                        480
gatgtggaaa taacgacaga acagccaacc atcgatgtca aagcagagca aattgtgccc
aaggacgcgg caaccattgc cgaggagaag aagaaactgg gcaacgacca atacaaggcg
                                                                        540
cagaactatc agaatgcact caagctctac acggatgcca tatcgctgtg tccggactcg
                                                                        600
gcggcatact atggcaatcg ggccgnctgc tacatgatgc tgctcaacta taatagcgcc
                                                                        660
ctgaccgacg cccgacacg
                                                                        679
<210> 20
<211> 529
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```
<212> DNA
<213> Drosophila
<400> 20
actacttcgc atggcacgct tttttccgtg tgctcggttc gttcggccat acaaaacaca
                                                                         60
aaattcaagt ttaaaaacta aataggcaac taaaagggaa gccgcagcga gataaagtga
                                                                        120
tttgctgaaa gagacqtaaq aaagttaatc qcatcqaaqq caccaqaaat cqqqqatttc
                                                                        180
taacacggcg cgcgtgcacg tagcatacat acgcaagcgc acacacacac gaacaattac
                                                                        240
ttgccattga cgcaaaagcg aaaaagcagt ggaataaagg ggaattgaca aataacaacg
                                                                        300
ttttgcaage actggactet ggtcgctggt gttctttcat tttgtaattg ccacgcatgg
                                                                        360
acgacgaagt aattgaaatt agcgacagca tacgggatga aacctcatcg aactccgaaa
                                                                        420
tggatgtgga aataacgaca gaacagccaa ccatcgatgt caaagcagag caaattgtgc
                                                                        480
ccaaggacgc ggcaaccatt gccgaggaga agaagatact gggcaacga
                                                                        529
<210> 21
<211> 783
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1) ... (783)
<223> n = A, T, C or G
<400> 21
cactacttcg catggcacgc ttttttccgt gtgctcggtt cgttcggcca tacaaaacac
                                                                         60
aaaattcaag tttaaaaact aaataggcaa ctaaaaggga agccgcagcg aataaagtga
                                                                        120
tttgctgaaa gagacgtaag aaagttaatc gcatcgaagg caccagaaat cggggatttc
                                                                        180
taacacggcg cgcgtgcgac gtacatacat acgcaagcgc acacacacac gaacaattac
                                                                        240
                                                                        300
ttgccattga cgcaaaagcg aaaaagcagt ggaataaagg ggaattgaca aataacaacg
ttttgcaagc actggactct ggtcgctggt gttctttcat tttgtaattg ccacgcatgg
                                                                       360
acgacgaagt aattgaaatt agcgacacgn acgcgaagaa acctcatcga actccgaaat
                                                                       420
ggatgtggaa ataacgacag aacagccaac catcgatgtc aaagcagagc aaattgtgcc
                                                                        480
caaggacgcg gcaaccattg ccgaggagaa gaagaaactg ggcaacgacc aatacaaggc
                                                                       540
gcagaactat cagaatgcac tcaagctcta cacggatgcc atatcgctgt gtccggactc
                                                                        600
ggcggcatac tatggcaatc gggccgcctg ctacatgatg ctgctcaact ataatagcgc
                                                                       660
cctgaccgac gcccgacacg ccatacgcat cgatccgggc ttcgagaagg cctacgtccg
                                                                       720
tgtggccaag tgctgtctgg ccctgggcga cattattggc ccgaacaggc cgtcaaaatg
                                                                       780
gtt
                                                                       .783
<210> 22
<211> 677
<212> DNA
<213> Drosophila
<400> 22
ttccaccact acttcgcatg gcacgctttt ttccgtgtgc tcggttcgtt cggccataca
                                                                        60
aaacacaaaa ttcaagttta aaaactaaat gggcaactaa aagggaagcc gcagcgaata
                                                                       120
aagtgatttg ctgaaagaga cgtaagaaag ttaatcgcat cgaaggcacc agaaatcggg
                                                                       180
gatttctaac acggcgcgcg tgcgacgtac atacatacgc aagcgcacac acacacgaac
                                                                       240
aattacttgc cattgacgca aaagcgaaaa agcagtggaa taaaggggaa ttgacaaata
                                                                       300
acaacgtttt gcaagcactg gactetggte getggtgtte tttcattttg taattgecac
                                                                       360
gcatggacga cgaagtaatt gaaattagcg acagcgaacg cgaagaaacc tcatcgaact
                                                                       420
ccgaaatgga tgtggaaata acgacagaac agccaaccat cgatgtcaaa gcagagcaaa
                                                                       480
ttgtgcccaa ggacgcggca accattgccg aggagaagaa gaaactgggc aacgaccaat
                                                                       540
acaaggcgca gaactatcag aatgcactca agctctacac ggatgccata tcgctqtqtc
                                                                       600
cggactcggc ggcatactat ggcaatcggg ccgcctgcta catgatgctg ctcaactata
                                                                       660
atagcgccct gaccgac
                                                                       677
<210> 23
<211> 386
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```
<212> DNA
<213> Drosophila
<400> 23
aactacttcg catggcacgc ttttttccgt gtgctcggtt cgttcggcca tacaaaacac
                                                                         60
aaaattcaag tttaaaaact aaataggcaa ctaaaaggga agccgcagcg aataaagtga
                                                                        120
tttgctgaaa qagacgtaag aaagttaatc gcatcgaagg caccagaaat cggggatttc
                                                                        180
taacacggcg cgcgtgcgac gtacatacat acgcaagcgc acacacacac gaacaattac
                                                                        240
ttgccattga cgcaaaagcg aaaaagcagt ggaataaagg ggaattgaca aataacaacg
                                                                        300
ttitgcaage actggactet ggtegetggt gttettteat tttgtaattg ceaegeatgg
                                                                        360
acgacgaagt aattgaaatt agcgac
                                                                        386
<210> 24
<211> 537
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(537)
<223> n = A, T, C or G
<400> 24
tttaacacaa atctcccatg atttattaat gttgccgaaa aaaaaatcca agaaagaaca
                                                                         60
                                                                        120
tttaaaaaatg tgaacttaca ctggaaattt agttgcatta ttttgattta gaatattttt
                                                                        180
tcaaataact tggcatatat tcattcgtta acataatcan aatgtggtat tttcttgctt
                                                                        240
tttggaaaag anatatgtan aagagttcaa aatttgtgcg ctgctgtatg ttggtttcgg
atgaggcaga aagtatggga ttgagatggt cttcttctct gtggtggtga acaacactcg
                                                                        300
ttgggatcct agaactcaaa gttgaacgat gaattattcc ggccaccgcc gttgaattgg
                                                                        360
aagaatgtgc ggaacatttg attcggatcg aagtcggctt gctcctgctc ctcgatatcc
                                                                        420
tggccgctgt cgtagcgcga cttcttgtga gcatccgaca gtatggcgta cgcctcgccc
                                                                        480
acctecttga acttgagete etecteettg egeteetegg eactgetgtt tgegtgt
                                                                        537
<210> 25
<211> 570
<212> DNA
<213> Drosophila
<220>
<221> misc_feature
<222> (1) ... (570)
\langle 223 \rangle n = A,T,C or G
<400> 25
                                                                         60
tttttccgtq tgctcggttc gttcggccat acaaaacaca aaattcaagt ttaaaaacta
                                                                        120
aataggcaac taaaagggaa gccgcagcga ataaagtgat ttgctgaaag agacgtaaga
                                                                        180
aagttaatcg catcgaaggc accagaaatc ggggatttct aacacggcgc gcgtgcgacg
tacatacata cgcaagcgca cacacacacg aacaattact tgccattgac gcaaaagcga
                                                                        240
aaaagcagtg gaataaaggg gaattgacaa ataacaacgt titgcaagca ctggactctq
                                                                        300
gtcgctggtg ttctttcatt ttgtaattgc cacgcatgga cgacgaagta attgaaatta
                                                                        360
gcgacagcac cgcgcagaaa cctcatcgaa ctccgaaatg gatgtggaaa taacgacaga
                                                                        420
acagccaacc atcgatgtca aagcagagca nattgtgctc aaggacgcgg caaccattgc
                                                                        480
                                                                        540
cgaggagaag aagaaactgg gcaacgacca atacaaggcg cagaactatc agaatgcact
                                                                        570
caagetetac acggatgeca tategetgtg
<210> 26
<211> 688
<212> DNA
<213> Drosophila
<400> 26
```

```
cttttttccg tgtgctcggt tcgttcggcc atacaaaaca caaaattcaa gtttaaaaac
                                                                         60
 taaataggca actaaaaggg aagccgcagc gaataaagtg atttgctgaa agagacgtaa
                                                                        120
 gaaagttaat cgcatcgaag gcaccagaaa tcggggattt ctaacacggc gcgcgtgcga
                                                                        180
cgtacataca tacgcaagcg cacacacaca cgaacaatta cttgccattg acgcaaaagc
                                                                        240
gaaaaagcag tggaataaag gggaattgac aaataacaac gttttgcaag cactggactc
                                                                        300
 tggtcgctgg tgttctttca ttttgtaatt gccacgcatg gacgacgaag taattgaaat
                                                                        360
tagcgacagc gaacgcgaag aaacctcatc gaactccgaa atggatgtgg aaataacgac
                                                                        420
agaacagcca accatcgatg tcaaagcaga gcaaattgtg cccaaggacg cggcaaccat
                                                                        480
tgccgaggag aagaagaaac tgggcaacga ccaatacaag gcgcagaact atcagaatgc
                                                                        540
actcaagete tacaeggatg ceatateget gtgteeggae teggeggeat actatggeaa
                                                                        600
tegggeegee tgetacatga tgetgeteaa ctataatage geeetgaceg acgeeegaca
                                                                        660
cgccatacgc atcgatccgg gcttcgag
                                                                        688
<210> 27
<211> 531
<212> DNA
<213> Drosophila
<400> 27
cttttttccg tgtgctcggt tcgttcggcc atacaaaaca caaaattcaa gtttaaaaac
                                                                         60
taaataggca actaaaaggg aagccgcagc gaataaagtg atttgctgaa agagacgtaa
                                                                        120
gaaagttaat cgcatcgaag gcaccagaaa tcggggattt ctaacacggc gcgcgtgcga
                                                                        180
cgtacataca tacgcaagcg cacacacaca cgaacaatta cttgccattg acgcaaaagc
                                                                        240
gaaaaagcag tggaataaag gggaattgac aaataacaac gttttgcaag cactggactc
                                                                        300
tggtcgctgg tgttctttca ttttgtaatt gccacgcatg gacgacgaag taattgaaat
                                                                        360
tagcgacage gaacgcgaag aaacctcate gaactccgaa atggatgtgg aaataacgae
                                                                        420
cgaacagcca accatcgatg tcaaagcaaa acaaattgtg cccaaggacg cggcaaccat
                                                                        480
tgccgaggag aagaagaaac tgggctacga ccaatacaag gcgcagaact a
                                                                       531
<210> 28
<211> 479
<212> DNA
<213> Drosophila
<400> 28
cttttttccg tgtgctcggt tcgttcggcc atacaaaaca caaaattcaa gtttaaaaac
                                                                        60
taaataggca actaaaaggg aagccgcagc gaataaagtg atttgctgaa agagacgtaa
                                                                       120
gaaagttaat cgcatcgaag gcaccagaaa tcgggggattt ctaacacggc gcgcgtgcga
                                                                       180
cgtacataca tacgcaagcg cacacacaca cgaacaatta cttgccattg acgcaaaagc
                                                                       240
gaaaaagcag tggaataaag gggaattgac aaataacaac gttttgcaag cactggactc
                                                                       300
tggtcgctgg tgttctttca ttttgtaatt gccacgcatg gacgacgaag taattgaaat
                                                                       360
tagcgacage ggacgcgaag aaacctcate gaacteegaa atggatgtgg aaataacgae
                                                                       420
agaacagcca accatcgatg tcaaagcaga gcaaattgtg ccccaggacg cggcaacca
                                                                       479
<210> 29
<211> 367
<212> DNA
<213> Drosophila
<400> 29
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                                                                        60
taaataggca actaaaaggg aagccgcagc gaataaagtg atttgctgaa agagacgtaa
                                                                       120
gaaagttaat cgcatcgaag gcaccagaaa tcgggggattt ctaacacggc gcgcgtgcga
                                                                       180
cgtacataca tacgcaagcg cacacacaca cgaacaatta cttgccattg acgcaaaagc
                                                                       240
gaaaaagcag tggaataaag gggaattgac aaataacaac gttttgcaag cactggactc
                                                                       300
tggtcgctgg tgttctttca ttttgtaatt gccacgcatg gacgacgaag taattgaaat
                                                                       360
tagcgac
                                                                       367
<210> 30
<211> 506
<212> DNA
```

```
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(506)
<223> n = A, T, C or G
<400> 30
acgetttttt cegtgtgete ggttegtteg gecatacaaa acacaaaatt caagtttaaa
                                                                        60
aactaaataq qcaactaaaa qqqaaqccqc aqqanataaa qtqatttqct qaaaqaqacq
                                                                       120
taagaaagtt aatcgcatcg aaggcaccag aaatcgggga tttctaacac ggcgcgcgtg
                                                                       180
gacgtacata catacgcaag cggcacacac acacgaacaa ttacttgcca ttgacgcaaa
                                                                       240
agcgaaaaag cagtggaata aaggggaatt gacaaataac aacgttttgc aagcactgga
                                                                       300
ctctggtcgc tggtgttctt tcattttgta attgccacgc atggacgacg aagtaattga
                                                                       360
                                                                       420
aattaqcqac aggancgcgn agaaacctca tcgaactccg aaatggatgt ggaaataacg
                                                                       480
acagaacage caaccatega tgtcaaagea gagcaaattg tgcccaagga cgcggcaace
                                                                       506
attgccgagg agaagaagaa actggg
<210> 31
<211> 370
<212> DNA
<213> Drosophila
<400> 31
gcacgctttt ttccqtqtqc tcqqttcqtt cqqccataca aaacacaaaa ttcaaqttta
                                                                        60
                                                                       120
aaaactaaat aggcaactaa aagggaagcc gcagcgaata aagtgatttg ctgaaagaga
                                                                       180
cqtaaqaaaq ttaatcqcat cqaaqqcacc agaaatcggg gatttctaac acggcgcgcg
                                                                       240
tgcgacgtac atacatacgc aagcgcacac acacacgaac aattacttgc cattgacgca
                                                                       300
aaagcgaaaa agcagtggaa taaaggggaa ttgacaaata acaacgtttt gcaagcactg
gactetggte getggtgtte tttcattttg taattgccae geatggaega egaataattg
                                                                       360
                                                                       370
aaattagcga
<210> 32
<211> 377
<212> DNA
<213> Drosophila
<400> 32
                                                                        60
cacgettttt teegtgtget eggttegtte ggeeatacaa aacacaaaat teaagtttaa
                                                                       120
aaactaaata ggcaactaaa agggaagccg cagcgaataa agtgatttgc tgaaagagac
                                                                       180
gtaagaaagt taatcgcatc gaaggcacca gaaatcgggg atttctaaca cggcgcgcgt
                                                                       240
gcqacqtaca tacatacqca agcqcacaca cacacqaaca attacttgcc attgacqcaa
                                                                       300
aaqcqaaaaa qcaqtqqaat aaaqgggaat tgacaaataa caacgttttg caagcactgg
                                                                       360
actotygtcq ctggtgttct ttcattttgt aattgccacg catggacgac gaagtaattg
                                                                       377
agattagcga ccgcatc
<210> 33
<211> 691
<212> DNA
<213> Drosophila
<400> 33
                                                                        60
catggcacgc ttttttccgt gtgctcggtt cgttcggcca tacaaaacac aaaattcaag
                                                                       120
tttaaaaact aaataggcaa ctaaaaggga agccgcagcg aataaagtga tttgctgaaa
gagacgtaag aaagttaatc gcatcgaagg caccagaaat cggggatttc taacacggcg
                                                                       180
cgcgtgcgac gtacatacat acgcaagcgc acacacaca gaacaattac ttgccattga
                                                                       240
cgcaaaagcg aaaaagcagt ggaataaagg ggaattgaca aataacaacg ttttgcaagc
                                                                       300
actggactct ggtcgctggt gttctttcat tttgtaattg ccacgcatgg acgacgaagt
                                                                       360
aattgaaatt agcgacagcg aacgcgaaga aacctcatcg aactccgaaa tggatqtgga
                                                                       420
                                                                       480
aataacqaca qaacaqccaa ccatcgatgt caaagcagag caaattgtgc ccaaggacgc
                                                                       540
ggcaaccatt gccgaggaga agaagaaact gggcaacgac caatacaagg cgcagaacta
```

```
tcagaatgca ctcaagctct acacggatgc catatcgctg tgtccggact cggcggcata
                                                                        600
ctatggcaat cgggccgcct gctacatgat gctgctcaac tataatagcg ccctgaccga
                                                                        660
cgcccgacac gccatacgca tcgatccggg c
                                                                        691
<210> 34
<211> 635
<212> DNA
<213> Drosophila
<400> 34
gcacgctttt ttccgtgtgc tcggttcgtt cggccataca aaacacaaaa ttcaagttta
                                                                         60
aaaactaaat aggcaactaa aagggaagcc qcagcgacat aaagtgattt qctgaaagag
                                                                        120
acgtaagaaa gttaatcgca tcgaaggcac cagaaatcgg ggatttctaa cacggcgcgc
                                                                        180
gtggacgtac atacatacgc aagcgcacac acacacgaac aattacttgc cattgacgca
                                                                        240
aaagcaaaaa gcagtggaat aaaggggaat tgacaaataa caacgttttg caagcactgg
                                                                        300
actetggteg etggtgttet tteattttgt aattgecaeg catggaegae gaagtaattg
                                                                        360
aaattagcga cagtaccgcg cagaaacctc atcgaactcc qaaatggatg tggaaataac
                                                                        420
gacagaacag ccaaccatcg atgtcaaagc agagcaaatt qtgcccaagg acgcggcaac
                                                                        480
cattgccgag gagaagaaga aactgggcaa cgaccaatac aaggcgcaga actatcagaa
                                                                        540
tgcactcaag ctctacacgg atgccatatc gctgtgtccg gactcggcgg catactatgg
                                                                        600
caatcgggcc gcctgctaca tgatgctgct caact
                                                                        635
<210> 35
<211> 589
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(589)
<223> n = A, T, C \text{ or } G
<400> 35
gcatggcacg cttttttccg tgtgctcggt tcgttcggcc atacaaaaca caaaattcaa
                                                                         60
gtttaaaaac taaataggca actaaaaggg aagccgcagc gaataaagtg atttgctgaa
                                                                        120
                                                                        180
agagacgtaa gaaagttaat cgcatcgaag gcaccagaaa tcggggattt ctaacacggc
gegegtgega egtacataca taegeaageg cacacacaca egaacaatta ettgecattg
                                                                        240
acgcaaaagc gaaaaagcag tggaataaag gggaattgac aaataacaac gttttgcaag
                                                                        300
cactggacte tggtegetgg tgttetttea ttttgtaatt gecaegeatg gaegaegaag
                                                                        360
taattgaaat tagcgacagc anacgcgaag aaacctcatc gaactccgaa atggatgtgg
                                                                        420
aaataacgac agaacagcca accatcgatg tcaaagcaga gcaaattgtg cccaaggacg
                                                                        480
cggcaaccat tgccgaggag aagaagaaac tgggcaacga ccaatacaag gcgcagaact
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atcagaatgc actcaagctc tacacggatg ccatatcgct gtgtccgga
                                                                        589
<210> 36
<211> 566
<212> DNA
<213> Drosophila
<220>
<221> misc_feature
<222> (1)...(566)
<223> n = A,T,C or G
<400> 36
atatgtatat ttctgtttat ttaacacaaa tctcccatga tttattaatg ttgccgaaaa
                                                                         60
aaaaaaatcca agaaagaaca tttaaaaaatg tgaacttaca ctggaaattt agttgcatta
                                                                        120
ttttgattta aaatattttt tcaaataact tggcatatat tcattcgtta acataatcaa
                                                                        180
aatgtggtat tttcttgctt tttggaaaag aaatatgtaa aagagttcaa aatttgtgcg
                                                                        240
ctgctgtatg ttggtttcgg atgaggcaga aagtatggga ttgagatggt cttcttctct
                                                                        300
gtggtggtga acaacactcg ttgggatcct agaactcaaa gttgaacgat gaattattcc
                                                                        360
```

```
ggccaccgcc gttgaattgg aagaatgtgc ggaacatttg attcggatcg aagtcggctt
                                                                      420
getectgete etegatatee tggeegetgt egtanegega ettettgtga geateegaea
                                                                      480
gtatggegta egectegece aceteettga acttgagete etecteettg egeteetegg
                                                                      540
cactgctgtt tgcgtgtcga tccgga
                                                                      566
<210> 37
<211> 589
<212> DNA
<213> Drosophila
<400> 37
aactatcaga atgcactcaa gctctacacg gatgccatat cgctgtgtcc ggactcggcg
                                                                       60
gcatactatg gcaatcgggc cgcctgctac atgatgctgc tcaactataa tagcgccctg
                                                                      120
accgacgccc gacacgccat acgcatcgat ccgggcttcg agaaggccta cgtccgtgtg
                                                                      180
gccaagtgct gtctggccct gggcgacatt attggcaccg aacaggccgt caaaatggtc
                                                                      240
aacgagctga attcgcttag cacggctgtt gctgccgaac agacggcggc gcaaaagttg
                                                                      300
360
ttctatttgg atagtgcctt gaaattggcg cccgcctgtt tgaaatatcg tctactcaag
                                                                      420
gctgagtgcc ttgcattttt ggggcgatgt gatgaggcct tggacattgc ggtcagtgta
                                                                      480
atgaaactgg ataccacatc ggcggatgcg atatacgtga gaggtctgtg cctgtactac
                                                                      540
acggacaacc tggacaaggg aattcttcat ttcgagcgcg ccctgaccc
                                                                      589
<210> 38
<211> 654
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1) ... (654)
<223> n = A, T, C or G
<400> 38
aaactgggca acgaccaata caaggcgcag aactatcaga atgcactcaa gctctacacg
                                                                      60
                                                                     120
gatgccatat cgctgtgtcc ggactcggcg gcatactatg gcaatcgggc cgcctgctac
atgatgctgc tcaactataa tagcgccctg accgacgccc gacacgccat acgcatcgat
                                                                      180
ccgggcttcg agaaggccta cgtccgtgtg gccaagtgct gtctggccct gggcgacatt
                                                                     240
                                                                     300
attggcaccg aacaggccgt caaaatggtc aacgagctga attcgcttag cacggctgtt
gctgccgaac agacggcggc gcaaaagttg cccaanttgg aggccaccat tcaggcgaac
                                                                     360
tacgatacga aatcctatcg caatgtggtc ttctatttgg atagtgcctt gaaattggcg
                                                                     420
cccgcatgtt tgaaatatcg tctactcaag gctgagtgcc ttgcattttt ggggcgatgt
                                                                     480
gatgaggcct tggacattgc ggtcagtgta atgaaactgg ataccacatc ggcggatgcg
                                                                     540
atatacgtga gaggtctgtg cctgtactac acggacaacc tggacaaggg aattcttcat
                                                                     600
ttcgagcgcg ccctgaccct cgacccggac cactaccagt ccaagcagat gcgc
                                                                     654
<210> 39
<211> 631
<212> DNA
<213> Drosophila
<400> 39
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                                                                      60
                                                                     120
accattqccq aggagaagaa gaaactgggc aacgaccaat acaaggcgca gaactatcag
aatgcactca agctctacac ggatgccata tcgctgtgtc cggactcggc ggcatactat
                                                                     180
                                                                     240
ggcaatcggg ccgcctgcta catgatgctg ctcaactata atagcgccct gaccgacgcc
cgacacgcca tacgcatcga tccgggcttc gagaaggcct acgtccgtgt ggccaagtgc
                                                                     300
tgtctggccc tgggcgacat tattggcacc gaacaggccg tcaaaatggt caacgagctg
                                                                     360
aattogotta gcacggotgt tgotgoogaa cagacggogg ogcaaaagtt gogocaattg
                                                                     420
gaggccacca ttcaggcgaa ctacgatacg aaatcctatc gcaatgtggt cttctatttg
                                                                     480
gatagtgcct tgaaattggc gcccgcctgt ttgaaatatc gtctactcaa ggctgagtgc
                                                                     540
cttgcatttt tggggcgatg tgatgaggcc ttggacattg cggtcagtgt aatgaaactg
                                                                     600
```

```
gataccacat cggcggatgc gatatacgtg a
                                                                        631
<210> 40
<211> 562
<212> DNA
<213> Drosophila
<400> 40
acgacagaac agccaaccat cgatgtcaaa gcagagcaaa ttgtgcccaa ggacgcggca
                                                                         60
accattgccg aggagaagaa gaaactgggc aacgaccaat acaaggcgca gaactatcag
                                                                        120
aatgcactca agctctacac ggatgccata tcgctgtgtc cggactcggc ggcatactat
                                                                        180
ggcaatcggg ccgcctgcta catgatgctg ctcaactata atagcgccct gaccgacgcc
                                                                        240
cgacacgcca tacgcatcga tccgggcttc gagaaggcct acgtccgtgt ggccaagtgc
                                                                        300
tgtctggccc tgggcgacat tattggcacc gaacaggccg tcaaaatggt caacgagctg
                                                                        360
aattegetta geaeggetgt tgetgeegaa eagaeggegg egeaaaagtt gegeeaattg
                                                                        420
gaggecacca tteaggegaa etacgatacg aaateetate geaatgtggt ettetatttg
                                                                        480
gatagtgcct tgaaattggc gcccgcctgt ttgaaatatc ggctactcaa agctgagtgc
                                                                        540
cttgcatttt tggggcgatg tg
                                                                        562
<210> 41
<211> 541
<212> DNA
<213> Drosophila
<400> 41
ccatacaaaa cacaaaattc aagtttaaaa actaaatagg caactaaaag ggaagccgca
                                                                         60
gcgaataaag tgatttgctg aaagagacgt aagaaagtta atcgcatcga aggcaccaga
                                                                        120
aatcggggat ttctaacacg gcgcgcgtgc gacgtacata catacgcaag cgcacacaca
                                                                        180
                                                                        240
cacgaacaat tacttgccat tgacgcaaaa gcgaaaaagc agtggaataa aggggaattg
acaaataaca acgttttgca agcactggac tctggtcgct ggtgttcttt cattttgtaa
                                                                        300
ttgccacgca tggacgacga agtaattgaa attagcgaca gcgaacgcga agaaacctca
                                                                        360
tcgaactccg aaatggatgt ggaaataacg acagaacagc caaccatcga tgtcaaagca
                                                                        420
gagcaaattg tgcccaagga cgcggcaacc attgccgagg agaagaagaa actgggcaac
                                                                        480
gaccaataca aggcgcagaa ctatcagaat gcactcaagc tctacacgga tgccatatcg
                                                                        540
                                                                        541
<210> 42
<211> 561
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(561)
<223> n = A, T, C \text{ or } G
<400> 42
ttcgttcggc catacaaaac acaaaattca agtttaaaaa ctaaataggc aactaaaagg
                                                                         60
                                                                        120
gaagccgcag cgaataaagt gatttgctga aagagacgta agaaagttaa tcgcatcgaa
ggcaccagaa atcggggatt tctaacacgg cgcgcgtgcg acgtacatac atacgcaagc
                                                                        180
                                                                        240
gcacacaca acgaacaatt acttgccatt gacgcaaaag cgaaaaagca gtggaataaa
                                                                        300
ggggaattga caaataacaa cgttttgcaa gcactggact ctggtcgctg gtgttctttc
attttgtaat tgccacgcat ggacgacgaa gtaattgaaa ttagcgacag cancqcacaq
                                                                        360
aaacctcatc gaactccgaa atggatgtgg aaataacgac agaacagcca accatcgatg
                                                                        420
tcaaagcaga gcaaattgtg cccaaggacg cggcaaccat tgccgaggag aagaagaaac
                                                                        480
tgggcaacga ccaatacaag gcgcagaact atcagaatgc actcaagctc tacacggatg
                                                                        540
ccatatcgct gtgtccggac t
                                                                        561
<210> 43
<211> 618
<212> DNA
```

```
<213> Drosophila
<220>
<221> misc_feature
<222> (1)...(618)
<223> n = A, T, C or G
<400> 43
ttcgttcggc catacaaaac acaaaattca agtttaaaaa ctaaataggc aactaaaagg
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gaagccgcag cgaataaagt gatttgctga aagagacgta agaaagttaa tcqcatcqaa
                                                                        120
ggcaccagaa atcggggatt tctaacacgg cgcgcgtgcg acgtacatac atacgcaagc
                                                                        180
gcacacacac acgaacaatt acttgccatt gacgcaaaag cgaaaaagca gtggaataaa
                                                                        240
ggggaattga caaataacaa cgttttgcaa gcactggact ctggtcgctg gtqttctttc
                                                                        300
attttgtaat tgccacgcat ggacgacgaa gtaattgaaa ttagcgacac ganacgcgaa
                                                                        360
gaaacctcat cgaactccga aatggatgtg gaaataacga cagaacagcc aaccatcgat
                                                                        420
gtcaaagcag agcaaattgt gcccaaggac gcggcaacca ttgccgagga gaagaagaaa
                                                                        480
ctqqqcaacg accaatacaa ggcgcagaac tatcagaatg cactcaagct ctacacggat
                                                                        540
gccatatcgc tgtgtccgga ctcggcggca tactatggca atcgggccgc ctgctacatg
                                                                        600
atgctgctca actataat
                                                                       618
<210> 44
<211> 582
<212> DNA
<213> Drosophila
<400> 44
ttcgttcggc catacaaaac acaaaattca agtttaaaaa ctaaataggc aactaaaagg
                                                                        60
gaagccgcag cgaataaagt gatttgctga aagagacgta agaaagttaa tcgcatcgaa
                                                                       120
ggcaccagaa atcggggatt tctaacacgg cgcgcgtgcg acgtacatac atacgcaagc
                                                                       180
gcacacacac acgaacaatt acttgccatt gacgcaaaag cgaaaaagca gtggaataaa
                                                                       240
ggggaattga caaataacaa cgttttgcaa gcactggact ctggtcgctg gtgttctttc
                                                                       300
attttgtaat tgccacgcat ggacgacgaa gtaattgaaa ttagcgacac gaatcgcgaa
                                                                       360
gaaacctcat cgaactccga aatggatgtg gaaataacga cagaacagcc aaccatcgat
                                                                       420
gtcaaagcag agcaaattgt gcccaaggac gcggcaacca ttgccgagga gaagaagaaa
                                                                       480
ctgggcaacg accaatacaa ggcgcagaac tatcagaatg cactcaagct ctacacggat
                                                                       540
gccatatcgc tgtgtccgga ctcggcggca tactatggca at
                                                                       582
<210> 45
<211> 550
<212> DNA
<213> Drosophila
<400> 45
ttcgttcggc catacaaaac acaaaattca agtttaaaaa ctaaataggc aactaaaagg
                                                                        60
gaagccgcag cgaataaagt gatttgctga aagagacgta agaaagttaa tcgcatcgaa
                                                                       120
ggcaccagaa atcggggatt tctaacacgg cgcgcgtgcg acgtacatac atacgcaagc
                                                                       180
gcacacacac acgaacaatt acttgccatt gacgcaaaag cgaaaaagca gtggaataaa
                                                                       240
ggggaattga caaataacaa cgttitgcaa gcactggact ctggtcgctg gtgttctttc
                                                                       300
attttgtaat tgccacgcat ggacgacgaa gtaattgaaa ttagcgacag cgaacgcgaa
                                                                       360
gaaacctcat cqaactccqa aatqqatqtq qaaataacqa caqaacaqcc aaccatcqat
                                                                       420
gtcaaaqcag aqcaaattgt qcccaaqqac qcqqcaacca ttqccqaqqa qaaqaaqaaa
                                                                       480
ctgggcaacg accaatacaa ggcgcagaac tatcagaatg cactcaagct ctacacggat
                                                                       540
gccatatcgc
                                                                       550
<210> 46
<211> 547
<212> DNA
<213> Drosophila
<220>
<221> misc_feature
```

```
<222> (1)...(547)
<223> n = A.T.C or G
<400> 46
ttcqttcggc catacaaaac acaaaattca agtttaaaaa ctaaataggc aactaaaagg
                                                                         60
gaagccgcag cgaataaagt gatttgctga aagagacgta agaaagttaa tcgcatcgaa
                                                                        120
ggcaccagaa atcggggatt tctaacacgg cgcgcgtgcg acgtacatac atacqcaaqc
                                                                        180
gcacacaca acgaacaatt acttgccatt gacgcaaaag cgaaaaagca gtggaataaa
                                                                        240
ggggaattga caaataacaa cgttttgcaa ggcactggac tctggtcgct ggtgttcttt
                                                                        300
cattttgtaa ttgccacgca tggacgacga agtaattgaa attagcgaca cganacgcga
                                                                        360
agaaacctca tcgaactccg aaatggatgt ggaaataacg acagaacagc caaccatcga
                                                                        420
tgtcaaagca gagcaaattg tgcccaagga cgcggcaacc attgccgagg agaagaagaa
                                                                        480
actgggcaac gaccaataca aggcgcagaa ctatcagaat gcactcaagc tctacacgga
                                                                        540
tgccata
                                                                        547
<210> 47
<211> 487
<212> DNA
<213> Drosophila
<400> 47
teggttegtt eggeeataca aaacacaaaa tteaagttta aaaactagat aggeaactaa
                                                                         60
aagggaagcc gcagcgaata aagtgatttg ctgaaagaga cgtaagaaag ttaatcgcat
                                                                        120
cgaaggcacc agaaatcggg gatttctaac acggcgcgcg tgcgacgtac atacatacgc
                                                                       180
aagcgcacac acacacgaac aattacttqc cattqacqca aaaqcqaaaa aqcaqtqqaa
                                                                       240
taaaggggaa ttgacaaata acaacgtttt gcaagcactg gactctggtc gctggtgttc
                                                                       300
tttcattttg taattgccac gcatggacga cgaagtaatt gaaattagcg acagcagcgc
                                                                       360
ggagaaacct catcgaactc cgaaatggat gtggacataa cgacagaaca gccaaccatc
                                                                       420
gatgtcaaag cagagcggat tgtgcccaag gacgcggcaa ccattgccga qqaqaaqaaq
                                                                       480
aaactgg
                                                                        487
<210> 48
<211> 246
<212> DNA
<213> Drosophila
<400> 48
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                                                                         60
actaaaaggg aagccgcagc gaataaagtg atttgctgaa agagacgtaa gaaagttaat
                                                                       120
cgcatcgaag gcaccagaaa tcggggattt ctaacacggc gcgcgtgcga cgtacataca
                                                                       180
tacgcaagcg cacacacaca cgaacaatta cttgccattg acgcaaaagc gaaaaagcag
                                                                       240
tggaat
                                                                       246
<210> 49
<211> 170
<212> DNA
<213> Drosophila
<400> 49
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                                                                        60
ataggcaact aaaagggaag ccgcagcgaa taaagtgatt tgctgaaaga gacgtaagaa
                                                                       120
agttaatcgc atcgaaggca ccagaaatcg gggatttcta aaacggcgcg
                                                                       170
<210> 50
<211> 511
<212> DNA
<213> Drosophila
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                                                                        60
ataggcaact aaaagggaag ccgcagcgaa taaagtgatt tqctgaaaga gacgtaagaa
                                                                       120
```

```
agttaatcgc atcgaaggca ccagaaatcg gggatttcta acacggcgcg cgtgcgacgt
                                                                        180
acatacatac gcaagcgcac acacacacga acaattactt gccattgacg caaaagcgaa
                                                                        240
aaagcagtgg aataaagggg aattgacaaa taacaacgtt ttgcaagcac tggactctgg
                                                                        300
tegetggtgt tettteattt tgtaattgee aegeatggae gaegagtaat tgaaattage
                                                                        360
gacagcatac gcgaaqaaac ctcatcqaac tccqaaatqq atqtqqaaat aacqacaqaa
                                                                        420
cagccaacca tcgatgtcaa agcagagcaa attgtgccca aggacgcggc aaccattgcc
                                                                        480
gaggagaaga agaaactggg caacgaccaa t
                                                                        511
<210> 51
<211> 702
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1) ... (702)
<223> n = A, T, C \text{ or } G
<400> 51
tttttccgtg tgctcggttc gttcggccat acaaaacaca aaattcaagt ttaaaaacta
                                                                         60
aataggcaac taaaagggaa qccgcaqcga nataaagtga tttgctgaaa gagacgtaag
                                                                        120
aaagttaatc gcatcgaagg caccagaaat cggggatttc taacacggcg cgcgtgcacg
                                                                        180
tacatacata cgcaagcgca cacacacacg aacaattact tgccattgac gcaaaagcga
                                                                        240
aaaagcagtg gaataaaggg gaattgacaa ataacaacgt tttgcaagca ctggactctg
                                                                        300
gtcgctggtg ttctttcatt ttgtaattgc cacgcatgga cgacgaagta attgaaatta
                                                                        360
gcgaccggan cgcgnagaaa cctcatcgaa ctccgaaatg gatgtggaaa taacgacaga
                                                                        420
acagccaacc atcgatgtca aagcagagca aattgtgccc aaggacgcgg caaccattgc
                                                                        480
cgaggagaag aagaaactgg gcaacgacca atacaaggcg cagaactatc agaatgcact
                                                                        540
caagetetae aeggatgeea tategetgtg teeggacteg geggeataet atggeaateg
                                                                        600
ggccgcctgc tacatgatgc tgctcaacta taatagcgcc ctgaccgacg cccgacacgc
                                                                        660
catacgcatc gatccgggct tcgagaaggc ctacgtccgt gt
                                                                        702
<210> 52
<211> 598
<212> DNA
<213> Drosophila
<220>
<221> misc feature
<222> (1)...(598)
<223> n = A, T, C or G
<400> 52
tttttccgtg tgctcggttc gttcggccat acaaaacaca aaattcaagt ttaaaaacta
                                                                         60
aataggcaac taaaagggaa gccgcagcga ataaagtgat ttgctgaaag agacgtaaga
                                                                        120
aagttaatcg catcgaaggc accagaaatc ggggatttct aacacggcgc gcgtgcgacg
                                                                        180
tacatacata cgcaaqcgca cacacacacq aacaattact tgccattgac gcaaaagcga
                                                                        240
aaaaqcaqtq qaataaaqqq qaattqacaa ataacaacqt tttqcaaqca ctqqactctq
                                                                        300
gtcgctggtg ttctttcatt ttgtaattgc cacgcatgga cgacgaagta attgaaatta
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                                                                        420
gcgacaggan cgcgnagaaa cctcatcgaa ctccgaaatg gatgtggaaa taacgacaga
acagecaace ategatgtea aageagagea aattgtgeee aaggaegegg caaceattge
                                                                        480
cgaggagaag aagaaactgg gcaacgacca atacaaggcg cagaactatc agaatgcact
                                                                        540
caagetetae aeggatgeea tategetgtg teeggaeteg geggeataet atggeaat
                                                                        598
<210> 53
<211> 669
<212> DNA
<213> Drosophila
<220>
<221> misc feature
```

```
<222> (1)...(669)
<223> n = A, T, C or G
<400> 53
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                                                                       120
ctgatgaaca getttatgcc cgatccettc atgcaggtct cgccctttga ccagggattc
                                                                       180
                                                                       240
cagcagaacg ctctcatgga gcgtccgcag atgccggcca tgccagccat gggcctcttc
ggcatgccca nntgatgcca caaactttaa tcgcccgttg aacgctgata ttggtggcaa
                                                                       300
                                                                       360
ttcaggcgca tccttctgcc agagcaccgt gatgaccatg tcatcgggtc ccgatgggcg
tecteagate taccaggeea geactagtae caaaacagga cegggaggeg ttegtgagae
                                                                       420
ccgcaggacg gtgcaggact cgcgcactgg ggtgaagaag atggccattg gtcatcacat
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cggcgagcgg gcacacatta ttgagaaaga gcaggacatg cgctcaggac aactggagga
                                                                       540
                                                                       600
gcgccaggag ttcattaatc tggaggaggg agaagccgag cagtttgaca gggagtttac
atcgcgcgct agtcgcggag cgtgcagtca agacatcatg ctggtggcat gcaggccatc
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atgcccgcc
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<211> 563
<212> DNA
<213> Drosophila
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atgcgctcga tgaatcgcct gatgaacagc tttatgcccg atcccttcat gcaggtctcg
                                                                       180
                                                                       240
ccctttgacc agggattcca gcagaacgct ctcatggagc gtccgcagat gccggccatg
ccagccatgg gcctcttcgg catgcccatg atgccaaact ttaatcgcct gttgaacgct
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qatattqqtq qcaattcaqq cqcatccttc tqccaqaqca ccqtgatqac catgtcatcq
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                                                                       420
                                                                       480
ggcgttcgtg agacccgcag gacggtgcag gactcgcgca ctggggtgaa gaagatggcc
attggtcatc acatcggcga gcgggcacac attattgaga aagagcagga catgcgctca
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                                                                       563
ggacaactgg aggagcgcca gga
<210> 55
<211> 763
<212> DNA
<213> Drosophila
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                                                                       180
cgatgaacat gcagatgcgc tcgatgaatc gcctgatgaa cagctttatg cccgatccct
                                                                       240
teatgeaggt etegecettt gaceagggat tecageagaa egeteteatg gagegteege
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agatgccggc catgccagcc atgggcctct tcggcatgcc catgatgcca aactttaatc
                                                                       360
gcctgttgaa cgctgatatt ggtggcaatt caggcgcatc cttctgccag agcaccgtga
tgaccatgtc atcgggtccc gatgggcgtc ctcagatcta ccaggccagc actagtacca
                                                                       420
aaacaggacc gggaggcgtt cgtgagaccc gcaggacggt gcaggactcg cgcactgggg
                                                                       480
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                                                                       540
                                                                       600
aggacatgcg ctcaggacaa ctggaggagc gccaggagtt cattaatctg gaggagggag
                                                                       660
aagccgagca gtttgacagg gagtttacat cgcgcgctag tcgcggaggc gtgcagtcaa
gacatcatgc tggtggcatg caggccatca tgcccgcccg tccagcggca cacacctcga
                                                                       720
                                                                       763
cgttgaccat tgagccagtg gaggacgacg acgacgatga tgc
<210> 56
<211> 709
<212> DNA
<213> Drosophila
<220>
<221> misc feature
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<222> (1)...(709)
<223> n = A, T, C or G
<400> 56
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                                                                        120
gaacgcgatg aacatgcaga tgcgctcgat gaatcgcctg atgaacagct ttatgcccga
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tecetteatg caggietege cettigacea gggattecag cagaacgete teatggageg
                                                                        240
teegeagatg eeggeeatge eageeatggg eetettegge atgeeeatga tgeeaaactt
                                                                        300
taatcgcctg ttgaacgctg atattggtgg caattcaggc gcatccttct gccagagcac
                                                                        360
cgtgatgacc atgtcatcgg gtcccgatgg gcgtcctcag atctaccagg ccagcactag
                                                                        420
taccaaaaca ggaccgggag gcgttcgtga gacccgcagg acggtgcagg actcgcgcac
                                                                        480
tggggtgaag aagatggcca ttggtcatca catcggcgag cgggcacaca ttattgagaa
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agagcaggac atgcgctcag gacaactgga ggagcgccag gagttcatta atctggagga
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gggagaagcc gagcagtttg acagggagtt tacatcgcgc gctagtcgcg gagcggtgca
                                                                        660
gtcaagacat catgctggtg gcatgcatgc catcatgccc gnccgtcca
                                                                        709
<210> 57
<211> 599
<212> DNA
<213> Drosophila
<400> 57
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                                                                        120
atgaacgcga tgaacatgca gatgcgctcg atgaatcgcc tgatgaacag ctttatgccc
                                                                        180
gatecettea tgcaggtete gecetttgae cagggattee agcagaacge teteatggag
                                                                        240
cgtccgcaga tgccggccat gccagccatg ggactcttcg gcatgcccat gatgccaaac
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tttaatcgcc tgttgaacgc tgatattggt ggcaattcag gcgcatcctt ctgccagagc
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accettgatga ccatetcatc gegtecceat gegeetectc agatetacca geccageact
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agtaccaaga caggaccggg aggegttegt gagaccegea agaeggtgea ggactegege
                                                                        480
actggggtga agaagatggc cattggtcat cacatcggcg agcgggcaca cattattgag
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aaagagcagg acatgcgctc aggacaactg gaggagcgcc aggagttcat taatctgga
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<210> 58
<211> 608
<212> DNA
<213> Drosophila
<400> 58
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                                                                       120
atgaacgcga tgaacatgca gatgcgctcg atgaatcgcc tgatgaacag ctttatgccc
                                                                       180
gatecettea tgeaggtete gecetttgae cagggattee ageagaaege teteatggag
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egteegeaga tgeeggeeat geeageeatg ggaetetteg geatgeeeat gatgeeaaae
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tttaatcgcc tgttgaacgc tgatattggt ggcaattcag gcgcatcctt ctgccagagc
                                                                       360
accytgatga ccatytcatc gygtcccyat gygcytcctc agatctacca gyccaycact
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agtaccaaga caggaccggg aggcgttcgt gagacccgca agacggtgca ggactcgcgc
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aaagagcagg acatgcgctc aggacaactg gaggagcgcc aggagttcat taatctggag
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gagggaga
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<210> 59
<211> 585
<212> DNA
<213> Drosophila
<400> 59
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gcgttgatgg gcgatttcga cgacgatctc ggccttatga acaaccacat gaaccacact
                                                                       120
atgaacgcga tgaacatgca gatgcgctcg atgaatcgcc tgatgaacag ctttatgccc
                                                                       180
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gatecettea tgeaggtete gecetttgae cagggattee ageagaaege teteatggag
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cgtccgcaga tgccggccat gccagccatg ggactcttcg gcatgcccat gatgccaaac
                                                                        300
tttaatcgcc tgttgaacgc tgatattggt ggcaattcag gcgcatcctt ctgccagagc
                                                                        360
acceptgatga ccategicate gegetecceat gegetecte agaictacca geccaecet
                                                                        420
agtaccaaga caggaccggg aggcgttcgt gagacccgca agacggtgca ggactcgcgc
                                                                        480
actggggtga agaagatggc cattggtcat cacatcggcg agcgggcaca cattattgag
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<210> 60
<211> 591
<212> DNA
<213> Drosophila
<400> 60
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atgaacgcga tgaacatgca gatgcgctcg atgaatcgcc tgatgaacag ctttatgccc
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gatecettea tgeaggtete geeetttgae eagggattee ageagaaege teteatggag
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egteegeaga tgeeggeeat geeageeatg ggeetetteg geatgeeeat gatgeeaaae
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tttaatcgcc tgttgaacgc tgatattggt ggcaattcag gcgcatcctt ctgccagagc
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accytgatga ccatytcatc gygtcccyat gygcytcctc agatctacca gyccaycact
                                                                        420
agtaccaaaa caggaccggg aggcgttcgt gagacccgca ggacggtgca ggactcgcgc
                                                                        480
actggggtga agaagatggc cattggtcat cacatcggcg agcgggcaca cattattgag
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                                                                        591
<210> 61
<211> 657
<212> DNA
<213> Drosophila
<400> 61
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atgaacgcga tgaacatgca gatgcgctcg atgaatcgcc tgatgaacag ctttatgccc
                                                                       180
gatecettea tgeaggtete geeetttgae eagggattee ageagaaege teteatggag
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cgtccgcaga tgccggccat gccagccatg ggcctcttcg gcatgcccat gatgccaaac
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tttaatcgcc tgttgaacgc tgatattggt ggcaattcag gcgcatcctt ctgccagagc
                                                                       360
accgtgatga ccatgtcatc gggtcccgat gggcgtcctc agatctacca ggccagcact
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agtaccaaaa caggaccggg aggcgttcgt gagacccgca ggacggtgca ggactcgcgc
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actggggtga agaagatggc cattggtcat cacatcggcg agcgggcaca cattattgag
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aaagagcagg acatgcgctc aggacaactg gaggagcgcc aggagttcat taatctggag
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gagggagaag ccgagcagtt tgacagggag tttacatcgc gcgctagtcg cggagcg
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<210> 62
<211> 718
<212> DNA
<213> Drosophila
<220>
<221> misc_feature
<222> (1) ... (718)
<223> n = A, T, C or G
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caaccacatg aaccacacta tgaacgcgat gaacatgcag atgcgctcga tgaatcgcct
                                                                       180
gatgaacage tttatgcccg atccettcat gcaggtctcg ccctttgacc agggattcca
                                                                       240
geagaacget ctcatggage gtccgcagat gccggccatg ccagccatgg gcctcttcgg
                                                                       300
catgcccatg atgccaaact ttaatcgcct gttgaacgct gatattggtg gcaattcagg
                                                                       360
cgcatccttc tgccagagca ccgtgatgac catgtcatcg ggtcccgatg ggcgtcctca
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```

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480
gatctaccag gccagcacta gtaccaaaac aggaccggga ggcgttcgtg agacccgcag
                                                                       540
qacqqtqcaq qactcqcqca ctqqqqtqaa qaaqatqqcc attqqtcatc acatcqqcqa
                                                                       600
gegggeacae attattgaga aagageagga catgegetea ggacaactgg aggagegeea
                                                                       660
ggagttcatt aatctggagg agggagaagc cgagcagttt gacagggagt ttacatcgcg
                                                                       718
cgctagtcgc ggagcggtgc agtcaagaca tcatgctggt ggcatgcang ccatcatg
<210> 63
<211> 497
<212> DNA
<213> Drosophila
<400> 63
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atccacaaaa atgtctttat teggagegtt gatgggegat ttegaegaeg atcteggeet
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tatgaacaac cacatgaacc acactatgaa cgcgatgaac atgcagatgc gctcgatgaa
                                                                       180
tegeetgatg aacagettta tgeeegatee etteatgeag gtetegeeet ttgaeeaggg
                                                                       240
                                                                       300
attocagoag aacgototoa tggagogtoo gcagatgoog gccatgocag ccatgggact
                                                                       360
cttcggcatg cccatgatgc caaactttaa tcgcctgatg aacgctgcta ttggtgggaa
ttcaggcgca tccttctgcc agagcaccgg gatgaccatg tcatcgggtt ccgatgggcg
                                                                       420
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tgctcagatc taccaggcca gcactagttc caagacagga ccgggaggcg ttcgtgagac
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ccgcaagacg gtgcagg
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<211> 685
<212> DNA
<213> Drosophila
<400> 64
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                                                                       120
ccttatgaac aaccacatga accacactat gaacgcgatg aacatgcaga tgcgctcgat
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gaatcqcctg atgaacagct ttatgcccga tcccttcatg caggtctcgc cctttgacca
                                                                       240
                                                                       300
gggattccag cagaacgetc tcatggageg tccgcagatg ccggccatge cagccatggg
                                                                       360
cctcttcggc atgcccatga tgccaaactt taatcgcctg ttgaacgctg atattggtgg
caattcaggc gcatcettet gccagagcae egtgatgace atgteategg gteeegatgg
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gcgtcctcag atctaccagg ccagcactag taccaaaaca ggaccgggag gcgttcgtga
                                                                       480
gaccegcagg acggtgcagg actegegcae tggggtgaag aagatggcca ttggtcatca
                                                                       540
catcggcgag cgggcacaca ttattgagaa agagcaggac atgcgctcag gacaactgga
                                                                       600
ggagcgccag gagttcatta atctggagga gggagaagcc gagcagtttg acagggagtt
                                                                       660
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<210> 65
<211> 540
<212> DNA
<213> Drosophila
<400> 65
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                                                                       180
teggeettat gaacaaceae atgaaceaea etatgaaege gatgaacatg eagatgeget
cgatgaatcg cctgatgaac agctttatgc ccgatccctt catgcaggtc tcgccctttg
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accagggatt ccagcacgaa cgctctcatg gagcgtccgc agatgccggc catgcagcca
tgggcctctt cggcatgcca tgatgccaac tttaatcgcc tgttgaacgc tgatattggt
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                                                                       420
gggcggtcct cagatctacc aggccagcac tagtaccaaa acaggaccgg gaggcgttcg
                                                                       480
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<210> 66
<211> 681
<212> DNA
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<213> Drosophila

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<210> 67 <211> 675 <212> DNA <213> Drosophila					
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<210> 68 <211> 627 <212> DNA <213> Drosophila					
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gatgcgctcg	atgaatcgcc	tgatgaacag	ctttatgccc	gatcccttca	tgcaggtctc	240
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cagccatggg	cctcttcggc	atgcccatga	tgccaaactt	taatcgcctg	ttgaacgctg	360
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ggcgttcgtg	agacccgcag	atcggtgcag	gactcgcgca	ctggggtgaa	gaagatggcc	540
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